

WITNESS TESTING REPORT

Hardline Laboratory

Report No. : TH10320E/2022

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Date : NOV. 15, 2023

Frontline Fall Protection Inc

6 Lee Blvd, Malvern, PA 19355, USA (888) 523-1795

The following merchandise was submitted and identified by the applicant as:

Product Description: Anchorage connector

Style/Item No.: STB5K

Site of Witness: No. 88-8, Sec. 2, Zhongtong W. Rd., Wufeng Dist., Taichung City 41355, Taiwan

Additional Information: Test Witness: James Tsai.

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Requested: Clause 3.2.1, 3.2.2, 3.2.3 & 3.2.5 of ANSI/ASSE Z359.18-2017, Safety Requirements for Anchorage Connectors for Active Fall Protection Systems.

Test Method: ANSI/ASSE Z359.18-2017, Safety Requirements for Anchorage Connectors for Active Fall Protection Systems.

Test of Samples: Device types: Type A

Test Result: --See following sheet(s)--

Testing Period: FEB. 11, 2022 ~ FEB. 18, 2022 ; MAY 06, 2022

Conclusion: The submitted sample **complies with** clause 3.2.1, 3.2.2, 3.2.3 & 3.2.5 of ANSI/ASSE Z359.18-2017, Safety Requirements for Anchorage Connectors for Active Fall Protection Systems.

Testing Site: No. 9, 14th Rd., Taichung Ind. Park, Taichung City 40755, Taiwan

Signed for and on behalf of
SGS Taiwan Ltd.



Luke Lee
Supervisor



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Test Method & Results:

Clauses	Test Item/Results	Compliance								
3.2.1	<p>3.2.1.1 Static Strength – Type A. When tested in accordance with 4.2.1.1, the anchorage connector shall be capable of resisting a static load of at least 5,000 pounds (22.2kN). The anchorage connector may deform provided that, where operable gates are used, the deformation shall not create a separation of more than 1/8 inch (3mm) between the gate and the body.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Static test:</td> <td>No breaking and withstand the load. (Sample No.1)</td> </tr> </table> <p>Additional test of minimum breaking strength as the applicant's request.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Minimum breaking strength: ≥ 4540 kgf (10000 lbf)</td> <td>7969 kgf (17611 Lbf) (Sample No.2)</td> </tr> </table>	Test item	Observation	Static test:	No breaking and withstand the load. (Sample No.1)	Test item	Observation	Minimum breaking strength: ≥ 4540 kgf (10000 lbf)	7969 kgf (17611 Lbf) (Sample No.2)	Pass
Test item	Observation									
Static test:	No breaking and withstand the load. (Sample No.1)									
Test item	Observation									
Minimum breaking strength: ≥ 4540 kgf (10000 lbf)	7969 kgf (17611 Lbf) (Sample No.2)									
3.2.2	<p>3.2.2.1 Dynamic Strength – Type A. When tested in accordance with 4.2.2.1, the anchorage connector shall successfully arrest the test weight. The anchorage connector may deform provided that, where operable gates are used, the deformation shall not create a separation of more than 1/8 inch (3mm) between the gate and the body.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Dynamic test:</td> <td>The test weight was successfully arrested. (Sample No.1)</td> </tr> </table>	Test item	Observation	Dynamic test:	The test weight was successfully arrested. (Sample No.1)	Pass				
Test item	Observation									
Dynamic test:	The test weight was successfully arrested. (Sample No.1)									
3.2.3	<p>3.2.3.1 Residual Strength – Type A. When tested in accordance with 4.2.3.1, the anchorage connector shall successfully arrest the drop of the test weight and maintain the test weight in suspension for at least 1 minute. The anchorage connector may deform provided that, where operable gates are used, the deformation shall not create a separation of more than 1/8 inch (3mm) between the gate and the body.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Residual Strength:</td> <td>No breaking and withstand the load. (Sample No.1)</td> </tr> </table>	Test item	Observation	Residual Strength:	No breaking and withstand the load. (Sample No.1)	Pass				
Test item	Observation									
Residual Strength:	No breaking and withstand the load. (Sample No.1)									
3.2.5	<p>Corrosion Test Requirements 3.2.5.1 Type A and Type D anchorage connectors that include ferrous metal load-bearing components made of materials other than stainless steel or hot-dipped galvanized steel shall pass the corrosion test in 4.2.5.1. The presence of red rust, visible to the unaided eye, or other evidence of corrosion of the base metal shall constitute failure of the salt spray test. Post-test presence of white scale on hardware surface is permitted. Components that have had salt spray testing in accordance with another Z359 standard need not be tested for corrosion under this standard.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Signs of corrosion (visual check):</td> <td>No (Sample No.1)</td> </tr> </table>	Test item	Observation	Signs of corrosion (visual check):	No (Sample No.1)	Pass				
Test item	Observation									
Signs of corrosion (visual check):	No (Sample No.1)									

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Test equipment:

Description	Manufacturer	Model No.	Serial No.	Cal. Date
Laser distance meter	BOSCH	GLM40	122213512	2021/11/22
Environmental testing equipment	TERCHY	HEMB-120L	1080911	2021/8/17
Environmental testing equipment	TERCHY	HEMB-120L	1060910	2021/8/17
Universal Machine	NTS	LCX-100kN	18038	2022/3/18
Force guage	AIKOH	RX-10	D02639	2022/5/4
Load cell	JIHSENSE	LM-3T	90508	2021/7/14
Salt spray tester	-	DR-90	B-03-01	2021/8/9
PH meter	Lutron	PH-211	AJ.92507(B-03-02)	2020/9/25

Note :

1. The content of this report is invalid if it is not presented as the entire report.
2. The statement of conformity is based on the test results, but does not include the measurement uncertainty.
3. N/A = Not applicable; "--" = blank.

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– Picture(s) –

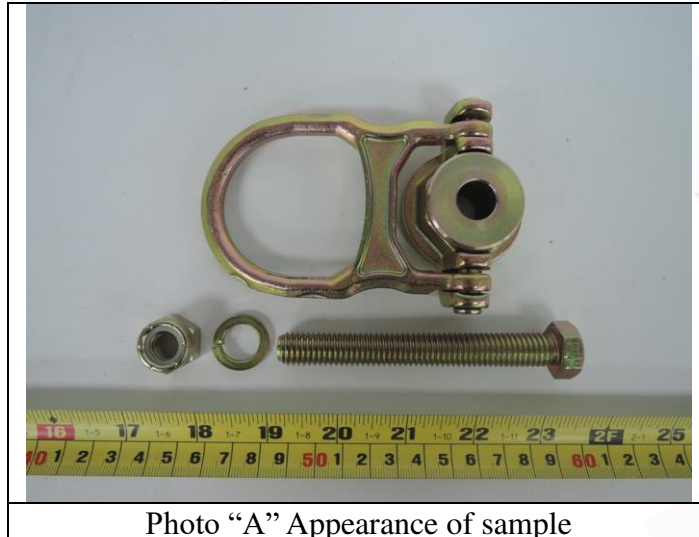


Photo "A" Appearance of sample

--- End of Report ---

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